March 24, 2000

IN RE: DOCKET NO. 2000-040-C – E.SPIRE COMMUNICATIONS/BELLSOUTH ARBITRATION

COPY OF **DIRECT TESTIMONY** OF ALPHONSO J. VARNER, D. DAONNE CALDWELL W/EXHIBIT DDC-1 ON CD, RONALD M. PATE, AND W. KEITH MILNER FILED ON BEHALF OF BELLSOUTH HAS BEEN DISTRIBUTED TO:

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March 23, 2000

The Honorable Gary E. Walsh
Executive Director
Public Service Commission of SC
Post Office Drawer 11649
Columbia, South Carolina 29211

Re: Petition by E.Spire Commununications, Inc. on behalf of Itself and its Operating Subsidiaries in South Carolina, for Arbitration of an Interconnection with BellSouth Telecommunications, Inc. Pursuant to the Communications Act of 1934, as Amended
Docket No. 2000-040-C

Dear Mr. Walsh:

Enclosed please find for filing in the above-referenced matter an original and twenty-five copies of the direct testimony of the following witnesses on behalf of BellSouth in the above-referenced matter: Alphonso J. Varner; D. Daonne Caldwell; Ronald M. Pate and W. Keith Milner.

Due to the voluminous nature of Exhibit DDC-1 (Exhibit 1 to the testimony of D. Daonne Caldwell), we have only provided the Commission with one copy of this exhibit. Should the Commission need additional copies, please advise. Proprietary versions of this exhibit will be provided upon request and upon the execution of a Proprietary Agreement.

Sincerely,

CN Watson

Caroline N. Watson

CNW/jbm
Enclosure
cc: Russell B. Shetterly, Esquire
Florence P. Belser, Esquire
Brad E. Mutschelknaus, Esquire
Mr. Riley M. Murphy

BELLSOUTH TELECOMMUNICATIONS, INC.

DIRECT TESTIMONY OF D. DAONNE CALDWELL

BEFORE THE PUBLIC SERVICE COMMISSION OF SOUTH CAROLINA

DOCKET NO. 2000-040-C

MARCH 24, 2000

Q. PLEASE STATE YOUR NAME, ADDRESS AND OCCUPATION.

A. My name is D. Daonne Caldwell. My business address is 675 W. Peachtree St., N.E., Atlanta, Georgia. I am a Director in the Finance Department of BellSouth Telecommunications, Inc. (hereinafter referred to as "BellSouth"). My area of responsibility relates to economic costs.

Q. PLEASE PROVIDE A BRIEF DESCRIPTION OF YOUR EDUCATIONAL BACKGROUND AND WORK EXPERIENCE.

A. I attended the University of Mississippi, graduating with a Master of Science Degree in mathematics. I have attended numerous Bell Communications Research, Inc. ("Bellcore") courses and outside seminars relating to service cost studies and economic principles.

My initial employment was with South Central Bell in 1976 in the Tupelo, Mississippi, Engineering Department where I was responsible for Outside Plant Planning. In 1983, I transferred to BellSouth Services, Inc. in Birmingham, Alabama, and was responsible for the Centralized Results System Database. I

moved to the Pricing and Economics Department in 1984 where I developed methodology for service cost studies until 1986 when I accepted a rotational assignment with Bellcore. While at Bellcore, I was responsible for development and instruction of the Service Cost Studies Curriculum including courses such as "Concepts of Service Cost Studies", "Network Service Costs", "Nonrecurring Costs", and "Cost Studies for New Technologies". In 1990, I returned to BellSouth and was appointed to a position in the cost organization, now a part of the Finance Department, with the responsibility of managing the development of cost studies for transport facilities, both loop and interoffice. My current responsibilities encompass testifying in cost-related dockets, cost methodology development, and the overall coordination of cost study filings.

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The purpose of my testimony is to present the cost study results for the network capabilities pertinent to the e.spire Communications, Inc. ("e.spire") Petition for Arbitration. Additionally, I describe the underlying cost methodology used in this study.

Attached to this testimony, as Exhibit DDC-1, is BellSouth's cost study, both in paper and electronic formats. Included in the study are an executive overview, a summary of results, element descriptions, factor development, TELRIC Calculator© input and outputs, and investment development work papers. Because the study contains proprietary information, both a public version and a

proprietary version have been developed. Release of the proprietary version is contingent upon execution of the appropriate nondisclosure agreement. BellSouth witness Al Varner addresses the rates that BellSouth is proposing based on BellSouth's cost study.

Q. WHAT ARBITRATION ISSUES DO THE COST STUDY RESULTS ADDRESS?

A. The cost study was conducted to address Arbitration Issues 8, 26 and 64.

Issue 8:

"Should BellSouth be required to lower rates for manual submission of orders or, alternatively, establish a revised "threshold billing plan" that (I) extends the timeframe for migration to electronic order submission and (ii) deletes services which are not available through electronic interfaces from the calculation of threshold billing amounts?"

Issue 26:

"Should BellSouth be required to establish TELRIC-based rates for the UNEs, including the new UNEs, required by the UNE Remand Order?"

Issue 64:

"What are the appropriate rates for the following: Security Access,

Assembly Point, Adjacent Collocation, DSLAM Collocation in the remote terminal, and non-ICB space preparation charges?"

The Public Service Commission of South Carolina ("Commission"), in Docket No. 97-374-C, established TELRIC-based rates for the majority of the Unbundled Network Elements ("UNEs") defined by the Federal Communications Commission ("FCC") in its UNE Remand Order. The Commission found "the rates proposed by the Commission Staff, based on the above-stated methodology [BellSouth's cost study, as modified by the Staff's proposals] comply with all the requirements of the 1996 Act; specifically they are 'just and reasonable', are 'based on cost', and are 'nondiscriminatory'." (Page 21, Order No. 98-214) There is no compelling reason for this Commission to revisit its earlier rulings in Docket No. 97-374-C.

The cost study (Exhibit DDC-1) conducted for this arbitration determines the Total Element Long Run Incremental Cost ("TELRIC") for a subset of the new UNEs defined in the FCC's UNE Remand Order which were not considered in Docket No. 97-374-C.

Additionally, elements relating to collocation which were not addressed in Docket No. 97-374-C, Security Access, Assembly Point, Adjacent Collocation, non-ICB space preparation costs and DSLAM Collocation in the remote terminal, have also been included for consideration.

Q. ISSUE #8 APPEARS TO CONCERN SERVICE ORDER PROCESSING. DID DOCKET NO. 97-374-C ADDRESS THESE COSTS?

A. Not entirely. This Commission did establish rates for the use of BellSouth's electronic interfaces in Docket No. 97-374-C. These costs can be applied both to orders for unbundled network elements ("UNEs") and for resale orders since both types of orders use the same interfaces. Also, the recovery of the costs for these interfaces was based on both UNE and resale orders. However, the cost of processing an order manually was included in the nonrecurring costs for the individual UNE. Thus, the cost of processing a resale order manually was not set. BellSouth is presenting these costs in this docket.

Q. IN ADDITION TO THE MANUAL ORDER PROCESSING ELEMENT, WHAT OTHER ELEMENTS DID BELLSOUTH STUDY?

A. Exhibit DDC-2, attached to this testimony, outlines the elements for which BellSouth provided cost results. The main categories of elements are: sub-loops, loop channelization, 2-wire copper loops, 4-wire copper loops, network terminating wire, high capacity local loops, local channels, and interoffice transport, loop conditioning, loop testing beyond voice, calling name database queries, local number portability database queries, security access, assembly point, adjacent collocation, DSLAM in the remote terminal, loop qualification database inquiries, and access to the DCS.

Q. WHAT TYPES OF COSTS ARE REFLECTED IN THE COST STUDY?

A. The cost study reflects both recurring and nonrecurring costs. Recurring costs

include both capital and non-capital costs. Capital costs are associated with the purchase of an item of plant, i.e., an investment. They consist of depreciation, cost of money, and income tax. Non-capital recurring costs are expenses associated with the use of an investment. These operating expenses consist of plant-specific expenses, such as maintenance, ad valorem taxes and gross receipts taxes.

Nonrecurring costs are one-time expenses associated with provisioning, installing and disconnecting the network capability. These costs include five major categories of activity: service inquiry, service order, engineering, connect and test, and technician travel time.

Q. IS BELLSOUTH'S COST STUDY CONSISTENT WITH THE FEDERAL COMMUNICATIONS COMMISSION'S (FCC's) COSTING METHODOLOGY?

A. Yes. BellSouth's cost study is consistent with the FCC's costing methodology as set forth in FCC Rule 51.505 (Forward-looking economic cost) which defines the FCC's cost methodology for UNEs. Pursuant to the FCC's rules, such costs must be developed using an efficient network configuration that uses the existing location of the Incumbent Local Exchange Carrier's (ILEC's) wire centers. Further, the costs should be developed using a forward-looking cost of capital and economic depreciation rates, and a reasonable allocation of forward-looking common costs is appropriate. The forward-looking economic costs may not include embedded costs, retail costs, opportunity costs or revenues to subsidize other services. The FCC's recent UNE Remand Order did not adjust the TELRIC

cost methodology.

Q. WHAT COST METHODOLOGY IS USED IN BELLSOUTH'S COST STUDY?

A. The study methodology accepted by Commission Order No. 98-214 in Docket No. 97-374-C dated June 1, 1998 is used to determine the costs outlined in Exhibit DDC-1. This Order established rates for numerous network capabilities, ranging from 2-Wire Analog Loop to Physical Collocation. In its discussion of the cost studies submitted by BellSouth and accepted by the Commission, the Commission states; "BellSouth's cost study developed 'economic costs', which reflects TELRIC plus consideration of common costs." (Order No. 98-214 at Page 30) The FCC developed the term "economic costs". In its Order, the FCC states, "In practice, this will mean that prices are based on the TSLRIC[1] of the network element, which we will call Total Element Long Run Incremental Cost (TELRIC), and will include a reasonable allocation of forward-looking joint and common cost." (Footnote added)

Q. PLEASE PROVIDE SOME BACKGROUND TO DOCKET NO. 97-374-C.

A. BellSouth filed cost studies to support permanent prices for unbundled elements.

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[1] TSLRIC stands for Total Service Long Run Incremental Cost. The TSLRIC methodology is basically identical to the TELRIC methodology once consideration is given to the purpose of the study. TSLRIC methodology is used to determine the cost of a service whereas the TELRIC methodology is used in determining the cost of a network element. The main difference is the inclusion of shared costs. These costs are excluded in a TSLRIC study. However, the FCC recognized that certain shared costs that would be excluded in a TSLRIC analysis are appropriate in a TELRIC study.

The studies were filed electronically with complete documentation. With these studies, BellSouth introduced a new cost model, the TELRIC Calculator©. The TELRIC Calculator© converts material prices and labor work times to cost. The Commission accepted the TELRIC Calculator© as a viable model to determine the TELRIC economic cost associated with network capabilities. However, the Commission did make some adjustments to the inputs filed by BellSouth.

Q. ARE THE ADJUSTMENTS TO BELLSOUTH'S INPUTS ORDERED BY THE COMMISSION INCORPORATED IN THE COST STUDY RESULTS PRESENTED IN EXHIBIT DDC-1?

A. Yes. The Commission ordered inputs that are relevant to the cost elements in this proceeding are included. The cost studies include the Commission-ordered cost of money, depreciation lives, shared and common factors, and fall-out rates.

Q. PLEASE ELABORATE ON THE ADJUSTMENTS BELLSOUTH MADE TO THE COST STUDY TO FULFILL THE COMMISSION ORDER NO. 98-214 IN DOCKET NO. 97-374-C.

A. I will address each of the adjustments made in this filing and reference the appropriate discussion from the South Carolina Commission's Order. The cost study follows the intent of each Commission adjustment. However, where appropriate, the inputs have been updated to reflect the study period, 2000-2002.

Cost of Capital – On page 22, the Commission states: "appropriate inputs to the

study will be the capital structure, cost of debt, and cost of equity presently approved by the Commission for BellSouth." This equates to a 35.82% debt/64.18% equity structure, 7.47% cost of debt and 12.75% cost of equity. The overall cost of capital is then 10.86%, which was utilized in BellSouth's study.

Depreciation – The Commission, on page 23, states: "Depreciation rates approved by this Commission should be used as input into the TELRIC process." These are the rates used to generate the costs included in Exhibit DDC-1.

Fill Factors – BellSouth used the fill factors outlined on page 23 of the Order, 75% feeder and 50% distribution.

Shared and Common Costs – The Commission accepted BellSouth's shared cost calculation. However, the Commission did adjust the common cost factor. On page 24 of Order 98-214, the Commission states: "Competitive common costs should be less over time, on a forward looking basis." Thus, the Commission lowered the factor to 4.79%. This is the value used in Exhibit DDC-1.

Fall-out Factors – The Commission stated that "a Fall-out Factor of 5% is the most appropriate." (Page 24 of Order No. 98-214) This adjustment has been made in BellSouth's study.

It is important to remember that even though the Commission made several input modifications, they accepted the TELRIC Calculator© as an appropriate means of determining BellSouth's costs associated with making an investment and with

provisioning a network capability.

Q. DID THIS COMMISSION RECENTLY REAFFIRM BELLSOUTH'S COST METHODOLOGY?

A. Yes. In its order in the DeltaCom arbitration (Docket No. 1999-259-C, Order No. 1999-690), this Commission stated:

> "the rates proposed for wire cages and fiber cross connects should be approved as these rates were calculated using cost studies with methodology identical to that adopted by the Commission in the generic UNE cost proceeding. The Commission has previously found these studies to be TELRIC cost studies that comply with all federal and state regulations and orders." (Page 97)

BellSouth followed the same methodology used in the DeltaCom arbitration in this proceeding.

Q. PLEASE SUMMARIZE YOUR TESTIMONY.

A. The cost study filed in this proceeding determines South Carolina-specific TELRIC economic costs for new unbundled network elements defined in the FCC's UNE Remand Order and for the manual handling of a resale service order. The costs were developed using the basic study methodology and approved input values previously authorized by this Commission in Docket No. 97-374-C.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

BellSouth Telecommunications, Inc.
SCPSC Docket No. 2000-040-C
Exhibit DDC-1

Due to the voluminous nature of this exhibit, only one copy of the public version of this exhibit is being furnished to the Public Service Commission and each party of record. The proprietary version of this exhibit will be furnished upon execution of a Proprietary Agreement.

SUB-LOOP
Feeder 2-Wire Analog Voice Grade Loop
Distribution 2-Wire Analog Voice Grade Loop
Distribution 4-Wire Analog Voice Grade Loop
Intrabuilding Network Cable (INC) 2-Wire Analog Voice Grade Loop
Intrabuilding Network Cable (INC) 4-Wire Analog Voice Grade Loop
Cross Box Location - CLEC Feeder Facility Set-Up
Cross Box Location - Per 25 Pair Panel Set-Up
Building Equipment Room - CLEC Feeder Facility Set-Up
Building Equipment Room - Per 25 Pair Panel Set-Up
Cross Box Location - CLEC Distribution Facility Set-Up
Building Equipment Room - CLEC Distribution Facility Set-Up
2-Wire Analog Voice Grade Loop SL2 / Feeder Only
4-Wire Analog Voice Grade Loop / Feeder Only
ISDN Digital Grade Loop / Feeder Only
4-Wire 56 or 64 Kbps Digital Grade Loop / Feeder Only
2-Wire Copper Loop Up To 18Kft / Feeder Only
4-Wire Copper Loop Up To 18Kft / Feeder Only
2-Wire Copper Loop Up To 18Kft / Distribution Only
4-Wire Copper Loop Up To 18Kft / Distribution Only

LOOP CHANNELIZATION AND CO INTERFACE (INSIDE CO)
Channelization - Channel System DS1 to DS0
Interface Unit - Interface DS1 to DS0 - OCU-DP Card
Interface Unit - Interface DS1 to DS0 - BRITE Card
Interface Unit - Interface DS1 to DS0 - Voice Grade Card
Channelization - Channel System DS3 to DS1
Interface Unit - Interface DS3 to DS1

2-WIRE COPPER LOOP
Up to 18000 Feet
Greater Than 18000 Feet

4-WIRE COPPER LOOP
Up to 18000 Feet
Greater Than 18000 Feet

UNBUNDLED NETWORK TERMINATING WIRE (NTW)
Unbundled Network Terminating Wire (NTW)

HIGH CAPACITY UNBUNDLED LOCAL LOOP
DS3 - Facility Termination
DS3 - Per Mile
OC3 - Facility Termination
OC3 - Per Mile
OC12 - Facility Termination
OC12 - Per Mile
OC48 - Facility Termination
OC48 - Per Mile
OC48 - Interface OC12 on OC48
STS-1 - Facility Termination
STS-1 - Per Mile

UNBUNDLED LOOP MODIFICATION
Load Coil - Short
Load Coil - Long First and Additional
Bridged Tap

Loop Testing
Basic Per Half Hour
Overtime Per Half Hour
Premium Per Half Hour

LOCAL CHANNEL - DEDICATED
DS3 - Per Mile
DS3 - Facility Termination
OC3 - Per Mile
OC3 - Facility Termination
OC12 - Per Mile
OC12 - Facility Termination
OC48 - Per Mile
OC48 - Facility Termination
OC48 - Interface OC12 on OC48
STS-1 - Facility Termination
STS-1 - Per Mile

INTEROFFICE TRANSPORT - DEDICATED
DS3 - Per Mile
DS3 - Facility Termination
OC3 - Per Mile
OC3 - Facility Termination
OC12 - Per Mile
OC12 - Facility Termination
OC48 - Per Mile
OC48 - Facility Termination
OC48 - Interface OC12 on OC48
STS-1 - Per Mile
STS-1 - Facility Termination

Calling Name(CNAM) per Query
CNAM for DB Owners - Service Establishment, Manual
CNAM for Non DB Owners - Service Establishment, Manual
CNAM for DB Owners - Service Provisioning with Point Code Establishment
CNAM for Non DB Owners - Service Provisioning with Point Code Establishment
CNAM for Database and Non Database Owners, Per Query

LNP Cost per Query

OSS Manual Processing, per local service request

PHYSICAL COLLOCATION
Security Access System - Security System, per Central Office
Security Access system - New Access Card Activation, per Card
Security Access System - Administrative Charge, Existing Card, per Card
Security Access System - Replace Lost or Stolen Card, per Card
Space Preparation - C.O. Modification per square ft.
Space Preparation - Common Systems Modification per square ft. - Cageless
Space Preparation - Common Systems Modification - per Cage
Space Prep - Power per Fused -48v DC Amp

ASSEMBLY POINT
2-Wire Cross Connects
4-Wire Cross Connects
DS-1 Cross Connects

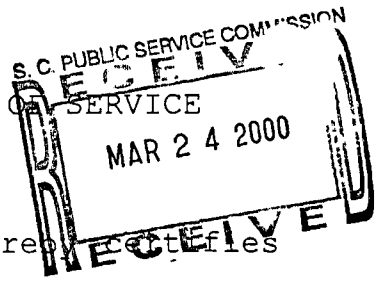
ADJACENT COLLOCATION
Space Cost Per SQ FT.
Electrical Facility Cost Per Linear Ft
2-Wire Cross Connects
4-Wire Cross Connects
DS1 Cross Connects
DS3 Cross Connects
2-Fiber Cross Connect
4-Fiber Cross Connect
Application Cost
120V, Single Phase Standby Power Cost
240V, Single Phase Standby Power Cost per AC Breaker AMP
120V, Three Phase Standby Power Cost per AC Breaker AMP
240V, Three Phase Standby Power Cost per AC Breaker AMP

DSLAM COLLOCATION IN A REMOTE TERMINAL (RT)
Collocation in the Remote Terminal per Vertical Rack (1-3/4")
Collocation in the Remote terminal per Line Activation

LOOP QUALIFICATION
Loop Qualification Database
Loop Qualification - Service Inquiry with Loop Make-up

ACCESS TO THE DCS - CUSTOMER RECONFIGURATION
Customer Reconfiguration Establishment
DS1 DSC Termination With DS0 Switching
DS1 DSC Termination With DS1 Switching
DS3 DSC Termination With DS1 Switching

STATE OF SOUTH CAROLINA)
) CERTIFICATE OF SERVICE
COUNTY OF RICHLAND)



The undersigned, Nyla M. Laney, hereby certifies that she is employed by the Legal Department for BellSouth Telecommunications, Inc. ("BellSouth") and that she has caused the Direct Testimony of D. Daonne Caldwell filed on behalf of BellSouth Telecommunications, Inc. in Docket No. 2000-040-C to be served this March 24, 2000 by the method indicated below each addressee listed:

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